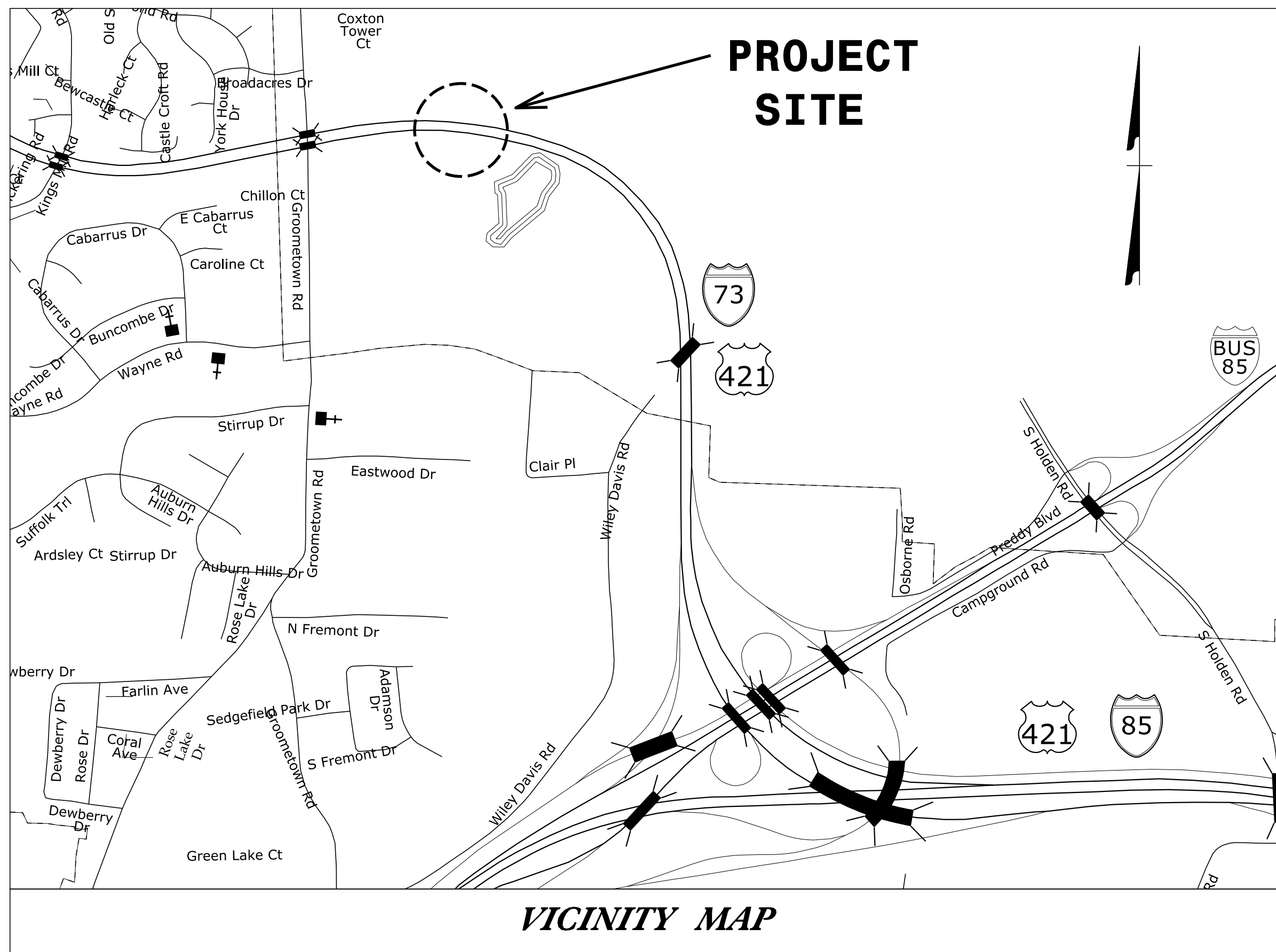
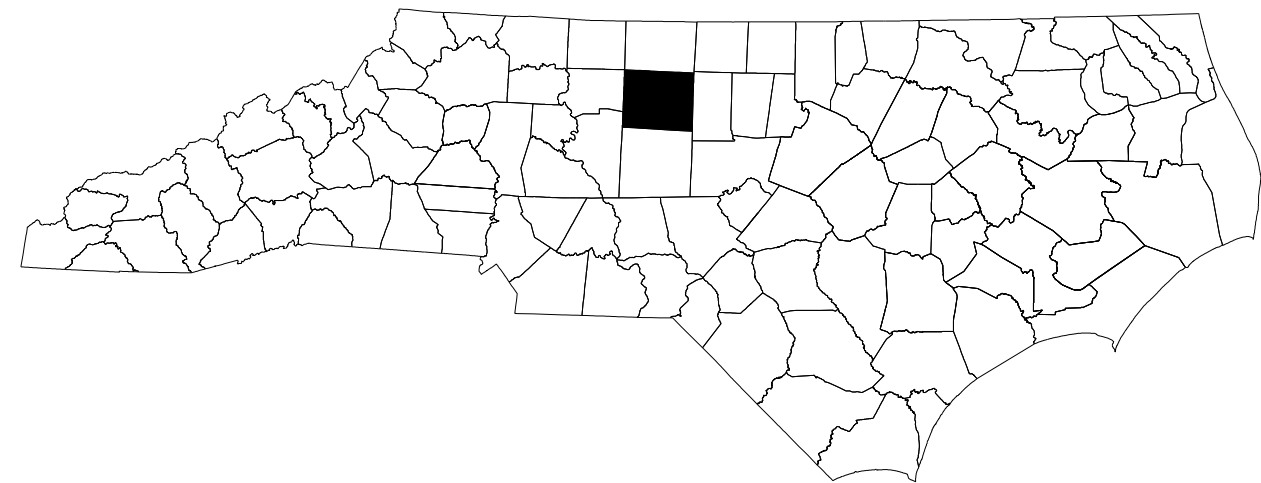
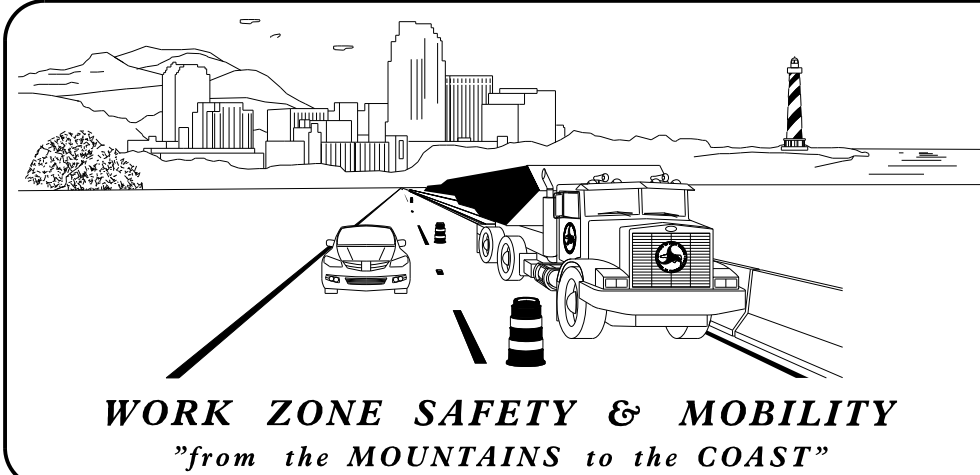


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN
GUILFORD COUNTY

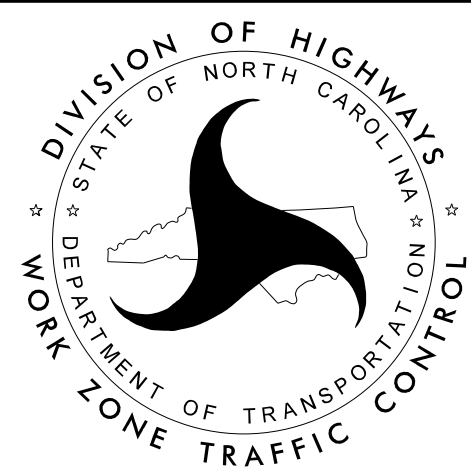


LOCATION: I-73(SB) NEAR EXIT 97
TYPE OF WORK: OVERHEAD SIGN STRUCTURE INSTALLATION



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

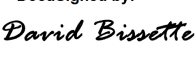
J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
DAVID BISSETTE, P.E. TRAFFIC CONTROL PROJECT ENGINEER
MICHAEL STEELMAN TRAFFIC CONTROL PROJECT DESIGN ENGINEER
RASAY ABADILLA, P.E. TRAFFIC CONTROL DESIGN ENGINEER



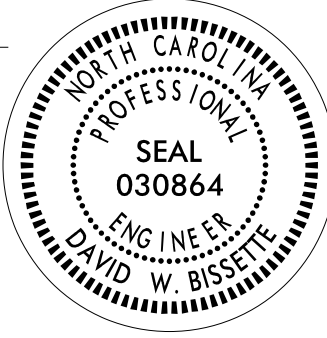
INDEX OF SHEETS

| SHEET NO. | TITLE |
|-----------|--|
| TMP-1 | TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS |
| TMP-1A | LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND |
| TMP-2-3 | TRANSPORTATION OPERATIONS PLAN: MANAGEMENT STRATEGIES, GENERAL NOTES AND PHASING |

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: 
DATE: 10/20/2016

SEAL



SHEET NO.
TMP-1

W-5601GH

TIP PROJECT:



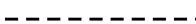


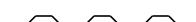
ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE |
|----------|---|
| 1101.01 | WORK ZONE ADVANCE WARNING SIGNS |
| 1101.02 | TEMPORARY LANE CLOSURES |
| 1101.03 | TEMPORARY ROAD CLOSURES |
| 1101.04 | TEMPORARY SHOULDER CLOSURES |
| 1101.11 | TRAFFIC CONTROL DESIGN TABLES |
| 1110.01 | STATIONARY WORK ZONE SIGNS |
| 1110.02 | PORTABLE WORK ZONE SIGNS |
| 1115.01 | FLASHING ARROW BOARDS |
| 1130.01 | DRUM |
| 1165.01 | WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION |

LEGEND

GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)

 WORK AREA

 REMOVAL

 USER DEFINED (IF NEEDED)

 USER DEFINED (IF NEEDED)







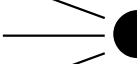


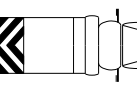

SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY




PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES




TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM
-  SKINNY DRUM
-  TUBULAR MARKER
-  TEMPORARY CRASH CUSHION
-  FLASHING ARROW BOARD
-  FLAGGER
-  LAW ENFORCEMENT
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

-  CRYSTAL/CRYSTAL
-  CRYSTAL/RED
-  YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

-    PAVEMENT MARKING SYMBOLS

I0/19/2016
S:\TMD\WZTC\DesignGroup2\specialprojects\NPOC Projects\W-5601GH (Overhead Signing Project)\W-5601GH_TC_TMP_1A.dgn
User:msfeelman

APPROVED: 

DATE: 10/20/2016





ROADWAY STANDARD
DRAWINGS & LEGEND

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

MANAGEMENT STRATEGIES

THE PROJECT CONSISTS OF REMOVING AN EXISTING CANTILEVER SIGN STRUCTURE AND INSTALLING A NEW FULL SPAN OVERHEAD SIGN STRUCTURE ON I-73(SB) NEAR EXIT 97. TRAFFIC MANAGEMENT STRATEGIES WILL INCLUDE TEMPORARY LANE CLOSURES AND TEMPORARY ROAD CLOSURE USING ROLLING ROAD BLOCK OPERATION.

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIREED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS |
|-----------|---|
| I-73 | SINGLE LANE CLOSURE: MONDAY - SUNDAY FROM 6:00 A.M. TO 7:00 P.M. |
| | DOUBLE LANE CLOSURE: MONDAY - SUNDAY FROM 6:00 A.M. TO 8:00 P.M. |

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

| ROAD NAME | HOLIDAY |
|---|---|
| I-73 | 1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER. |
| | 2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY. |
| | 3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY. |
| | 4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY. |
| | 5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY. |
| IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY. | |

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

SPECIAL EVENT

9. FOR HIGH POINT FURNITURE MARKET IN 2017, BETWEEN THE HOURS OF 6:00 A.M. APRIL 22 TO 7:00 P.M. APRIL 26, AND FROM 6:00 A.M. OCTOBER 14 TO 7:00 P.M. OCTOBER 18.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

| ROAD NAME | DAY AND TIME RESTRICTIONS | DURATION AND OPERATION |
|-----------|---|--|
| I-73 | MONDAY TO SUNDAY 6:00 A.M. TO 10:00 P.M. | 30 MINUTES FOR OVERHEAD SIGN INSTALLATION AND REMOVAL |

D) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- E) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- I) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

| | | |
|--|---|--------------------------------------|
| <div>APPROVED: <div>David Bisette</div><div>ECCDC908C87548C...</div></div> <div>DATE: 10/20/2016</div> <div><div>SEAL 030864</div><div>DAVID W. BISSETTE</div><div>ENGINEER</div><div>NORTH CAROLINA PROFESSIONAL</div></div> <div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div> | <div><div>DIVISION OF HIGHWAYS</div><div>STATE OF NORTH CAROLINA</div><div>DEPARTMENT OF TRANSPORTATION</div><div>WORK ZONE TRAFFIC CONTROL</div></div> | TRANSPORTATION OPERATIONS PLAN |
|--|---|--------------------------------------|

GENERAL NOTES CONTINUED

TRAFFIC PATTERN ALTERATIONS

- J) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- K) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- L) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

- M) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- N) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

LOCAL NOTE

- 1) CONTACT THE ENGINEER IF LAW ENFORCEMENT EFFORTS ARE NEEDED TO ASSIST WITH ANY TRAFFIC CONTROL OPERATIONS.

PHASING

STEP 1

USING ROADWAY STANDARD DRAWING 1101.01, SHEET 1 OF 3, INSTALL WORK ZONE ADVANCE WARNING SIGNS ALONG NB AND SB I-73.

STEP 2

USING ROADWAY STANDARD DRAWING 1101.02, SHEET 4 OF 15, RESET EXISTING GUARDRAIL ALONG NB I-73 MEDIAN TO CLOSE MAINTENANCE OPENING IN VICINITY OF PROPOSED OVERHEAD SIGN STRUCTURE LOCATION. RELOCATE MAINTENANCE OPENING IN GUARDRAIL TO LOCATION SHOWN IN CONTRACT DOCUMENTS OR AS DIRECTED BY THE ENGINEER.

STEP 3

USING ROADWAY STANDARD DRAWING 1101.02, SHEET 4 OF 15, ALTERNATELY IMPLEMENT LEFT LANE AND RIGHT LANE CLOSURES IN ORDER TO CONSTRUCT THE VERTICAL SUPPORTS FOR THE PROPOSED OVERHEAD STRUCTURE.

STEP 4

USING ROADWAY STANDARD DRAWING 1101.03, SHEET 9 OF 9, IMPLEMENT TEMPORARY ROAD CLOSURE (ROLLING ROAD BLOCK OPERATION) IN ORDER TO INSTALL THE PROPOSED OVERHEAD SIGN STRUCTURE AND SIGN.

STEP 5

USING ROADWAY STANDARD DRAWING 1101.03, SHEET 9 OF 9 (ROLLING ROAD BLOCK OPERATION), REMOVE EXISTING CANTILEVER SIGN AND STRUCTURE.

STEP 6

REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES.

| | | |
|--|---|---|
| <div>APPROVED: <div>David Bisette</div><div>ECDC908C87S48C...</div></div> <div>DATE: 10/20/2016</div> <div><div>SEAL 030864</div><div>DAVID W. BISSETTE</div></div> <div>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</div> | <div><div>DIVISION OF HIGHWAYS</div><div>STATE OF NORTH CAROLINA</div><div>DEPARTMENT OF TRANSPORTATION</div><div>WORK ZONE TRAFFIC CONTROL</div></div> | <div>TRANSPORTATION OPERATIONS PLAN</div> |
|--|---|---|

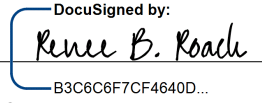
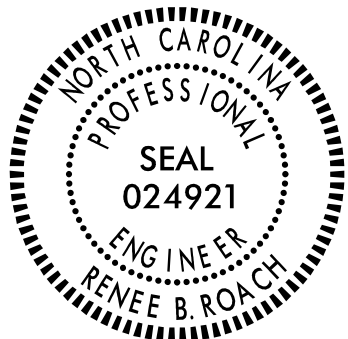
10/24/2016 10:24:20 AM S:\S&D\Central\NDIV 7 SIGN REQUEST\W-5601GH\Revised\Overhead to FullSpan1 Mile.DGN

T.I.P.: W-5601GH

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

SIGNING PLAN
GUILFORD COUNTY

LOCATION: OVERHEAD SIGN STRUCTURE ON I-73 SBL AT EXIT 97A-B

| | |
|--|-----------------------|
| PROJECT REFERENCE NO. W-5601GH | SHEET NO. SIGN - 1 |
| APPROVED:  DATE: 10/25/2016 | |
| SEAL  | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" -
PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C.,
DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE
CONSIDERED A PART OF THESE PLANS:

| STD. NO. | TITLE |
|----------|---|
| 901.10 | TYPE 'A' SIGNS |
| 901.20 | TYPE 'B' SIGNS |
| 901.50 | ARROWS AND SHIELDS |
| 901.80 | SIGN MOUNTING DETAILS - FOR TYPE A AND TYPE B SIGNS |
| 862.01 | GUARDRAIL REPLACEMENT |

GENERAL NOTES

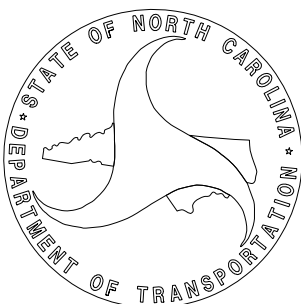
- CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- DO NOT BEGIN FABRICATION FOR TYPES A & B SIGNS MOUNTED ON OVERHEAD STRUCTURES OR STEEL SUPPORTS UNTIL "S" DIMENSIONS HAVE BEEN FIELD VERIFIED.

SUMMARY OF QUANTITIES

| ITEM NO. | | ITEM DESCRIPTION | QUANTITY | UNIT |
|------------|-----------|---|----------|------|
| DESC. NO. | SECT. NO. | | | |
| 4025000000 | 901 | CONTRACTOR FURNISHED, TYPE A SIGN | 639 | S.F. |
| 4025000000 | 901 | CONTRACTOR FURNISHED, TYPE B SIGN | 58 | S.F. |
| 4057000000 | SP | OVERHEAD FOOTING | 20 | C.Y. |
| 4082100000 | SP | SUPPORTS, OVERHEAD SIGN STRUCTURE @ 78+20 SBL | 1 | L.S. |
| 4149000000 | 907 | DISPOSAL OF SIGN SYSTEM, OVERHEAD | 1 | EA. |
| 3150000000 | 862 | ADDIT GUARDRAIL POST | 5 | EA. |
| 3270000000 | SP | GR ANCHOR TYPE 350 | 1 | EA. |
| 3210000000 | 862 | GR ANCHOR CAT-1 | 1 | EA. |
| 3345000000 | 864 | REMOVE & RESET EXISTING GUARDRAIL | 125 | L.F. |

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

R.B. ROACH, P.E. SIGNING & DELINEATION REGIONAL ENGINEER
S.W. JOHNS SIGNING & DELINEATION PROJECT DESIGN ENGINEER



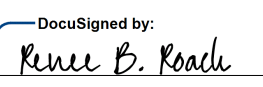
INDEX

| SHEET NO. | DESCRIPTION |
|-------------|-----------------------------------|
| SIGN-1 | TITLE SHEET |
| SIGN-2 & 2A | OVERHEAD DETAILS AND SIGN DESIGNS |
| SIGN-3 | SIGNING PLAN SHEET |

06/13/16 - FIELD VERIFIED SLOPES, LANE WIDTHS,
AND "S" DIMENSIONS PROVIDED
BY VANCE BARHAM (DIV. 7).


TIP NO.
W-5601GH

SHEET NO.
SIGN-2

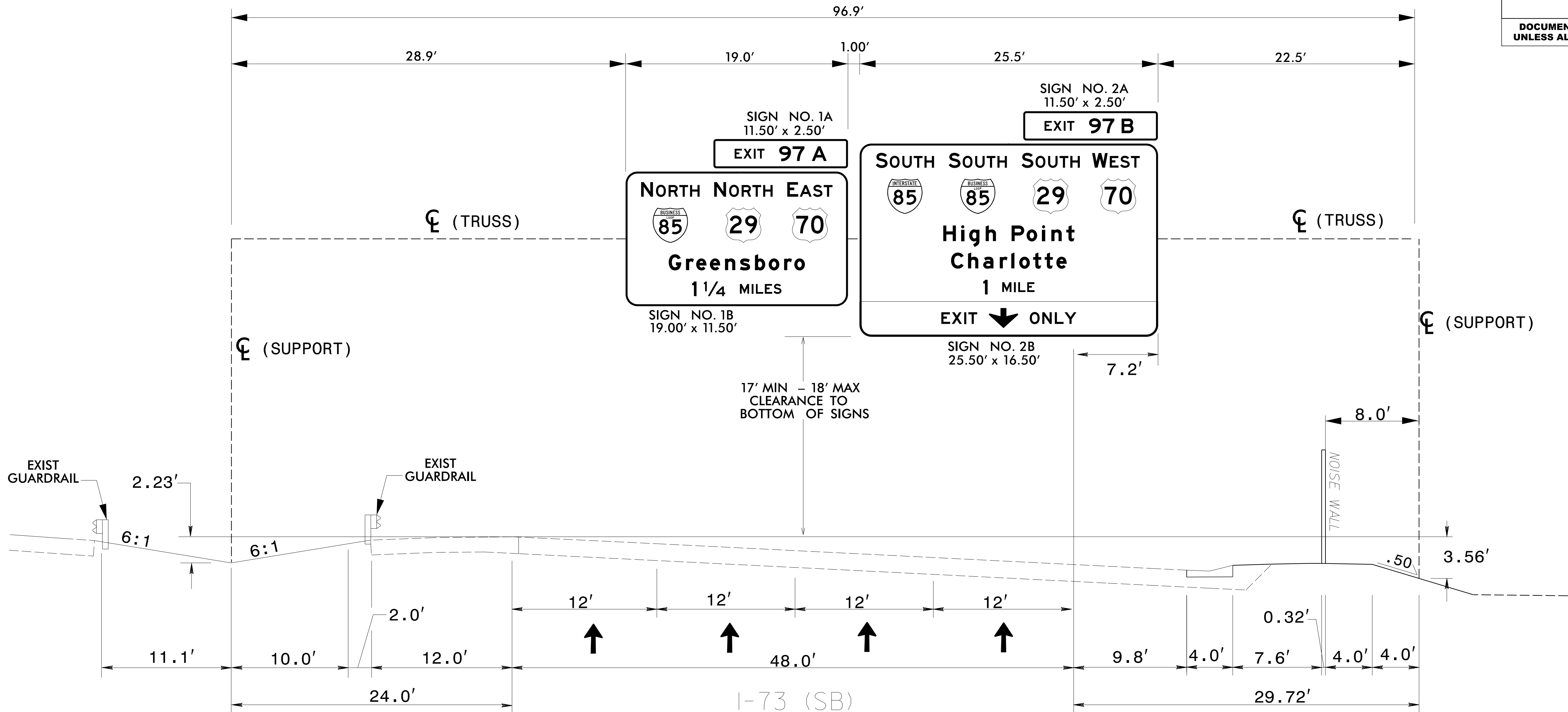
APPROVED: 

DATE: 10/20/2016

SEAL



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UNLESS ALL SIGNATURES COMPLETED



NOTES:

- IF THE CONTRACTOR BIDS ALUMINUM SIGN STRUCTURE, EACH SHALL BE PROVIDED WITH AN APPROVED HIGHWAY TRUSS DAMPER DEVICE IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
- MOUNT SIGNS VERTICALLY CENTERED ON HORIZONTAL MEMBER OF STRUCTURE.
- FIELD VERIFICATION SHALL BE REQUIRED FOR ALL FOOTING ELEVATIONS, PER THE LATEST NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. PROVIDE FIELD VERIFICATION TO THE SIGNING SECTION.
- THE TOP OF THE FOOTING SHALL EXTEND AT LEAST 4 INCHES AND NOT MORE THAN 24 INCHES ABOVE THE HIGHEST POINT OF THE GROUND SURFACE AT THE FOOTING.
- SIGN HANGERS AND ATTACHMENT HARDWARE SHALL BE PROVIDED AND INSTALLED ON THE ASSEMBLY TO ACCOMMODATE ALL SIGNS SHOWN IN THIS PLAN SHEET.
- DESIGN AND CONSTRUCTION REQUIREMENTS FOR SIGN STRUCTURES SHALL ACCOMMODATE WIND VELOCITY OF 90 M.P.H.

PROPOSED OVERHEAD SIGN
APPROX. STA. 78+20 (U-2412B/U-2524AE)
50' BEHIND EXISTING CANTILEVER
I-73 (SB)

[illegible][illegible][illegible][illegible]